In accordance with 37 CFR § 1.121(b)(1)(iii), Attachment B contains marked up versions of the replacement material illustrating the newly introduced changes in the specification.

IN THE CLAIMS

The following is a clean version of the entire set of pending claims. In accordance with 37 CFR § 1.121(c)(1)(ii), Attachment A provides marked up versions of the claims containing the newly introduced changes.

C6

1. (Three Times Amended) A system for searching music comprising:

a music sample location within a combined music space, said music sample location defined by a plurality of feature vectors including a first feature vector, each of said feature vectors representing a perceived music attribute of a music sample, said first feature vector including a first component and a second component, said first and second components each having more than two possible values;

a user request music location within said combined music space, said user request music location defined by search parameters, where said search parameters represent desired music attributes; and

an inferential engine for comparing said user request music location to said music sample location and determining a sample proximity between said user request music location and said music sample location.

C7

2. (Twice Amended) The system of Claim 1, wherein said first feature vector comprises an emotional quality vector; said first component of said emotional quality vector representing the degree to which a first emotion is evoked by said music sample and said second component of said emotional quality vector representing the degree to which a second emotion is evoked by said music sample.

3. (Twice Amended) The system of Claim 1, wherein said first feature vector comprises a vocal quality vector; said first component of said vocal quality vector representing the degree to which a first vocal quality parameter is present in said music

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sample and said second component of said vocal quality vector representing the degree to which a second vocal quality parameter is present in said music sample.

4. (Twice Amended) The system of Claim 1, wherein said first feature vector comprises a sound quality vector; said first component of said sound quality vector representing the degree to which a first sound quality parameter is present in said music sample and said second component of said sound quality vector representing the degree to which a second sound quality parameter is present in said music sample.

5. (Twice Amended) The system of Claim 1, wherein said first feature vector comprises a situational quality vector, said first component of said situational quality vector representing the degree to which said music sample would be desirable in a first situation and said second component of said situational quality vector representing the degree to which said music sample would be desirable in a second situation.

C7 Cont.

6. (Twice Amended) The system of Claim 1, wherein said first feature vector comprises a genre vector, said first component of said genre vector representing the degree to which a first music genre is present in said music sample and said second component of said genre vector representing the degree to which a second music genre is present in said music sample.

7. (Twice Amended) The system of Claim 1, wherein said first feature vector comprises an ensemble vector, said first component of said ensemble vector representing the extent to which a first ensemble type is present in said music sample and said second component of said ensemble vector representing the extent to which a second ensemble type is present in said music sample.

8. (Twice Amended) The system of Claim 1, wherein said first feature vector comprises an instrument vector, said first component of said instrument vector representing the importance of a first instrument in said music sample and said second component of said instrument vector representing the importance of a second instrument in said music sample.

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C1 cont'd.

9. (Twice Amended) The system of Claim 1, further comprising a plurality of input mixers for allowing a user to dynamically update said search parameters.

10. (Twice Amended) The system of Claim 9, wherein one of said plurality of input mixers is selected from the group consisting of a genre mixer, a voice quality mixer, an emotional quality mixer, an instrument mixer and a sound quality mixer.

11. (Previously Amended) The system of Claim 1, further comprising a user interface for receiving a plurality of user inputs defining said search parameters.

12. (Previously Amended) The system of Claim 1, wherein said plurality of feature vectors are stored in a production database.

C8

13. (Twice Amended) The system of Claim 1, further comprising a first music sample and a second music sample, wherein said inferential engine comprises a modeling module for performing a similarity analysis to determine a function for representing the similarity between said first music sample and said second music sample.

14. (Twice Amended) The system of Claim 1, wherein each of said plurality of feature vectors is formulated using responses to a plurality of questions asked of a plurality of music listeners after said plurality of music listeners are played said music sample.

C9

15. (Three Times Amended) A system for searching music based upon music content, comprising:

a user interface for receiving a user request for a music playlist, said user request including search parameters, where said search parameters represent desired music attributes, said search parameters defining a user request music location in a combined music space;

a plurality of music sample locations within a combined music space, each of said music sample locations defined by a plurality of feature vectors including a first feature vector, where each of said plurality of feature vectors represents a perceived music attribute of one of a plurality of music samples and where said first feature vector includes a first component and a second component, said first and second components each having more than two possible values; and

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C9 cont'd.

an inferential search engine configured to determine a sample proximity for each of said music samples, where said sample proximity is determined by comparing said user request music location to said music sample location.

C10

16. (Twice Amended) The system of Claim 15, wherein said user interface comprises a parser for parsing said user request, wherein the parser is a XML parser.

17. (Twice Amended) The system of Claim 15, wherein said user request comprises standard query language (SQL) calls.

C11

19. (Three Times Amended) The system of Claim 15, further comprising:

a modeling module for creating a similarity music space, said similarity music space including a music pair location, said music pair location representing the perceived similarity of one of said plurality of music samples to another of said plurality of music samples.

C12

20. (Twice Amended) A system for creating a music space, comprising:

a plurality of feature vectors, each of said plurality of feature vectors representing a perceived music attribute of a music sample, each of said plurality of feature vectors defining a location of said music sample within a music space, each of said plurality of feature vectors including a first component a second component, said first and second components each having more than two possible values; and

a modeling module which creates a plurality of music spaces by performing a similarity analysis of said feature vectors, said similarity analysis establishing boundaries for said music spaces.

21. (Twice Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises an emotional quality vector; said first component of said emotional quality vector representing the degree to which a first emotion is evoked by said music sample and said second component of said emotional quality vector representing the degree to which a second emotion is evoked by said music sample.

22. (Twice Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a vocal quality vector, said first component of said vocal quality

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vector representing the degree to which a first vocal quality parameter is present in said music sample and said second component of said vocal quality vector representing the degree to which a second vocal quality parameter is present in said music sample.

23. (Twice Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a sound quality vector; said first component of said sound quality vector representing the degree to which a first sound quality parameter is present in said music sample and said second component of said sound quality vector representing the degree to which a second sound quality parameter is present in said music sample.

24. (Twice Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a situational quality vector; said first component of said situational quality vector representing the degree to which said music sample would be desirable in a first situation and said second component of said situational quality vector representing the degree to which said music sample would be desirable in a second situation.

C 12 cont.

25. (Twice Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a genre vector, said first component of said genre vector representing the degree to which a first music genre is present in said music sample and said second component of said genre vector representing the degree to which a second music genre is present in said music sample.

26. (Twice Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises an ensemble vector, said first component of said ensemble vector representing the extent to which a first ensemble type is present in said music sample and said second component of said ensemble vector representing the extent to which a second ensemble type is present in said music sample.

27. (Twice Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises an instrument vector, said first component of said instrument vector representing the importance of a first instrument in said music sample and said second component of said instrument vector representing the importance of a second instrument in said music sample.

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28. (Twice Amended) The system of Claim 20, wherein said plurality of music spaces are combined to define a combined music space and wherein said plurality of feature vectors define a music sample location of said music sample within said combined music space.

29. (Amended) The system of Claim 28, wherein said plurality of feature vectors comprises at least two feature vectors taken from the group consisting of an emotional quality vector, a vocal quality vector, a sound quality vector, an ensemble quality vector, a genre vector, an instrument vector, and a situational vector, and wherein said combined music space comprises music spaces corresponding to said at least two feature vectors.

30. (Amended) The system of Claim 28, said combined music space further comprising a cluster space, wherein said music sample is included in a cluster if said music sample location is within said cluster space.

31. (Amended) The system of Claim 20, wherein said plurality of feature vectors are each formulated using responses to a plurality of questions asked of a plurality of music listeners after said plurality of music listeners are played one or more music samples.

Please cancel claim 32.

33. (New) The system of Claim 2, wherein said first emotion is selected from the group consisting of intense, happy, sad, mellow, romantic, heartbreaking, and aggressive.

34. (New) The system of Claim 3, wherein said first vocal quality parameter is selected from the group consisting of a smooth voice, a powerful voice, a great voice, and a soulful voice.

35. (New) The system of Claim 4, wherein said first sound quality parameter is selected from the group consisting of whether said music sample has a strong beat, whether the said music sample is simple, whether said music sample has a good groove, whether said

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music sample is fast, whether said music sample is speech like, and whether said music sample emphasizes a melody.

36. (New) The system of Claim 5, wherein said first situation is selected from the group consisting of at a workout, at a shopping mall, at a dinner party, at a dance party, for slow dancing, and for studying.

37. (New) The system of Claim 6, wherein said first music genre is selected from the group consisting of Alternative, Blues, Country, Electronic/Dance, Folk, Gospel, Jazz, Latin, New Age, R&B, Soul, Rap, Hip-Hop, Reggae, and Rock.

38. (New) The system of Claim 7, wherein the first ensemble type is selected from the group consisting of a female solo, a male solo, a female duet, a male duet, a mixed duet, a female group, a male group, and an instrumental.

39. (New) The system of claim 8, wherein the first instrument is selected from the group consisting of an acoustic guitar, an electric guitar, a bass, drums, a harmonica, an organ, a piano, a synthesizer, a horn, and a saxophone.

40. (New) The system of Claim 1, wherein said music sample location is generated by multiplying each of said plurality of feature vectors by a weighting factor.

41. (New) The system of claim 40, wherein said weighting factor for each of said plurality of feature vectors is determined using similarity data.

42. (New) The system of claim 40, wherein said weighting factor is determined by a user.

43. (New) The system of Claim 1, wherein said inferential engine is further configured for generating a playlist, said playlist including said music sample if said sample proximity is less than a maximum desired proximity.

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44. (New) The system of Claim 15, where said music playlist includes each of said plurality of music samples whose sample proximity is less than a maximum desired proximity.

45. (New) The system of Claim 15, further comprising a playlist number, where said music playlist includes a playlist number of said music samples having the smallest sample proximity.

46. (New) A system for searching music comprising:

a sample attribute location within a first music space, said sample attribute location defined by a feature vector, said feature vector representing a perceived first music attribute of a music sample, said feature vector including a first component and a second component, said first and second components each having more than two possible values;

a user request attribute location within said music space, said user request attribute location defined by one or more search parameters, where said search parameters represent a desired first music attribute; and

an inferential engine for comparing said user request attribute location to said sample attribute location and determining an attribute proximity between said user request attribute location and said sample attribute location.

47. (New) The system of claim 46, wherein said inferential engine is further configured to generate a list, said list including said music sample if said attribute proximity is less than a maximum desired attribute proximity.

48. (New) The system of claim 46, wherein said first music attribute is emotional quality, said feature vector is an emotional quality vector, and said first music space is an emotional quality space.

49. (New) The system of claim 46, wherein said first music attribute is a vocal quality, said feature vector is a vocal quality vector, and said first music space is a vocal quality space.

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50. (New) The system of claim 46, wherein said first music attribute is a sound quality, said feature vector is a sound quality vector, and said first music space is a sound quality space.

51. (New) The system of claim 46, wherein said first music attribute is a situational quality, said feature vector is a situational quality vector, and said first music space is a situational quality space.

52. (New) The system of claim 46, wherein said first music attribute is a genre, said feature vector is a genre vector, and said first music space is a genre space.

53. (New) The system of claim 46, wherein said first music attribute is an ensemble type, said feature vector is an ensemble vector, and said first music space is an ensemble space.

54. (New) The system of claim 46, wherein said first music attribute is an instrument type, said feature vector is an instrument vector, and said first music space is an instrument space.

55. (New) A method for searching music comprising:

providing a combined music space, said combined music space including a music sample location defined by a plurality of feature vectors including a first feature vector, each of said feature vectors representing a perceived music attribute of said music sample, said first feature vector including a first component and a second component, said first and second components each having more than two possible values;

receiving a request for a playlist, said request including search parameters, said search parameters representing desired music attributes;

determining a user request music location within said combined music space, said user request location defined by said search parameters; and

determining a sample proximity between said user request music location and said music sample location.

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